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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/542,884	04/04/2000	Masataka Hamada	32577-20169.00	5975

25227 7590 06/23/2004  
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MCLEAN, VA 22102

EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 06/23/2004

25

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/542,884

Applicant(s)

HAMADA, MASATAKA

Examiner

Tung T. Vo

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 5/24/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/24/04 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over prompt Fujiwara et al. (US 6,346,949) in view of Lu et al (US 6,252,623 B1).

Re claims 1, 4, and 8, Fujiwara discloses a camera for getting information upon three dimensional shape, comprising: an image taking device (5 of fig. 1) for taking an image of an object within a region (P1-PK of fig. 1) to be photographed; a projector (50 of fig. 1) for projecting a slit light on the region, and a monitor (1 of fig. 1) for displaying the image of the object which the image taking device takes (MX of fig. 3), in which the monitor has a memory (30 of fig. 1) for storing the image of the object the image taking device takes when the projector

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does not project the pattern of the region (MX of fig. 3); wherein the image taking device takes a projection slit light which is formed on the object within the region by the slit light that the projector projects (GX of fig. 3), and wherein the monitor displays the image, stored in the memory of the object, instead of the image of the object the image taking device takes with the projector projecting the slit light on the region (col. 3, lines 1-11). Furthermore, Fujiwara teaches the display or monitor (20 of figs. 1 and 3) displays the stored image of the object from the memory (30 of fig. 1; col. 3, lines 48-58) based upon the controller (10 of fig. 1) incorporate to the input device (40 of fig. 1).

Fujiwara further suggests the form data and the color images of the actual object are read directly from the memory (30) for displaying on the display (20)(see also col. 7, lines 38-48), and the display or monitor (20) that displays the stored image of the object without the projected light or displays an image of the object without the projected light while the light is projected on the object (col. 3, lines 48-58), so this means Fujiwara teaches the image of the object without the pattern can be observed even if the object is being lighted with the pattern light.

It is noted that Fujiwara does not specifically teach a light which spreads on the region to be photographed and has a predetermined pattern within the spread area as claimed.

However, Lu teaches a light which spreads on the region to be photographed and has a predetermined pattern within the spread area (38, 14, 36, 34 of fig. 2, col. 6, lines 28-42).

Therefore, taking the combined teachings of Fujiwara and Lu together as a whole it would have been obvious to one of ordinary skill in the art to incorporate the predetermined pattern light (38, 14, 36, 34 of fig. 2, col. 6, lines 28-42) of Lu into the camera of Fujiwara for the same purpose of illuminating the predetermined pattern light on the object. Doing so would provide the camera

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system, which is suitable for use on live or moving objects, inexpensive to manufacture and does not require a complex mathematical computations to determine three dimensional object as suggested by Lu (col. 2, lines 45-57).

Re claims 2-3, 5-7, 11-13, Fujiwara further teaches wherein the pattern light is not a uniform light and has a distribution of illuminate (Visible light of fig. 1), and the projection slit pattern which is formed on the object within the region by the pattern light comprises at least one stripe which is slit light; wherein the slit pattern light comprises a colored light (color image) where the color is defined in a range (col. 3, lines 59-67), and wherein the slit pattern which is formed on the object within the region by the pattern light comprises a color part (col. 4, lines 1-14).

Re claim 9, Fujiwara further teaches a second memory, memory devices such as hard disk (col. 3, lines 15-16) for storing the image of the object the image taking part takes, wherein the second memory output the image of the object, thus stored to the first memory which is system memory in CPU 1 as shown in the figure 1 of Fujiwara, successively.

Re claim 10, Fujiwara further teaches the second memory is prohibited from being outputted to the first memory (col. 3, lines 20-27); when image taking part which is two dimensional of the object, takes the image of the object in the state in which the projector projects the light on the points (P1-Pk of fig. 1) of the object (3 of fig. 1) with the predetermined pattern (col. 3, lines 45-58).

***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the previous Office Action, Paper No. 15.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



T.Vo.

Tung T. Vo  
Primary Examiner  
Art Unit 2613